

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Road-Side Fuel Reduction HLF
<b>Proposed Implementation Date:</b>	Upon Signature
<b>Proponent:</b>	USDA Forest Service – Helena and Lewis and Clark National Forest Helena Ranger District
<b>Location:</b>	T08N R05W, T07N R05W
<b>County:</b>	Jefferson County, Montana

### I. TYPE AND PURPOSE OF ACTION

The USDA Forest Service - Helena Ranger District is applying for an Alternative Practice (AP) to reduce fuel and remove hazard trees on Forest Service land located along several roads in the South and North Forks of Quartz Creek, Lava Mountain Trail, and Kady Creek. This area has been significantly affected by mountain pine beetle in the lodgepole pine stands there are large numbers of snags along the road. This Alternative Practice would facilitate the removal of hazard trees that are a hazard to fire fighters, agency and public safety.

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ. The proximity of hazard trees to roads and infrastructure has created significant safety issues that may require treatments outside of the allowances of the SMZ law. Treatment would be limited to operation of harvest equipment inside the 50 foot SMZ, but no closer than 15 feet to the ordinary high water mark (OHWM) unless equipment is operating while on an existing road or crossing in an approved location. Harvest equipment would need to enter and exit in a straight in and out manner, avoiding turning and disturbing soil. Trees and slash may be placed inside of the 50 foot buffer but no closer than 25 feet from OHWM, or in an existing roadway for skidding. This treatment would be conducted on slopes less than 20% and would allow removal of lodgepole, Douglas-fir, and/or Engelmann spruce to below minimum retention standards for short stretches. This AP and modifies rules 1, 2, 3, 4 and 5 in the *Montana Guide to the Streamside Zone Law and Rules 2006* (ARM 36.11.310-313). Additional mitigations and stipulations pertinent to this request will include:

- Operation of harvest equipment inside the 50 foot SMZ would be allowed, no closer than 15 feet to the ordinary high water mark (OHWM) on slopes less than 20%. Operation would occur in a straight in and straight out manner. A cable choker may be used to retrieve logs that the harvest equipment cannot remove from the SMZ.
- Soil disturbance within the SMZ will occur concurrent with operations while erosion measures are in place. These measures may include use of: slash, straw, filter fabric and/or wattle. These measures must be sufficient to prevent sedimentation to streams under rainfall rates of 1.5 inches per hour.
- All disturbed sites in the SMZ shall be grass-seeded.
- Operation would only occur during periods when soil disturbance can be minimized under dry conditions.

- No trees shall be felled in or across the stream. Immediately remove any debris that enters the stream as a result of falling or skidding operations .
- Mitigation measures would include grass-seeding and slash-filter windrows placed on disturbed areas to prevent run-off and sediment from reaching stream segments.
  - Small, healthy trees and all brush species would be retained and protected to the greatest extent possible.
  - This AP only allows for equipment operation on slopes less than 20%.

## II. PROJECT DEVELOPMENT

### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

*See USFS Roadside Hazard Decision for further analysis.*

Montana DNRC (Devin Healy), Helena Ranger District (Craig Kockler)

### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

DNRC is not aware of other agencies besides the proponent with jurisdiction. DNRC is not aware of other permits needed to complete this project. If new crossings are established FS will be responsible for permitting.

### 3. ALTERNATIVES CONSIDERED:

Alternative A –No Action: Machinery would not be allowed to operate inside the SMZ buffer. Fewer hazard trees would be removed. Retention requirements would be observed

Alternative B – Action: Please see *Type and Purpose of Action* for a full description of this alternative.

## III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

*See USFS Roadside Hazard Decision for further analysis*

Alternative A - No Action: No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Trees would be cable skidded out of the SMZ. Harvest equipment would operate on soils described as "poorly suited" to timber harvest equipment operation outside of the 50 foot SMZ buffer.

Alternative B – Action: Equipment operation would occur inside the SMZ, and it would be limited to areas where slope is less than 20%. Mitigation measures would include operating season restrictions that require dry conditions. Equipment would be required to operate in a straight in and out manner. In addition, grass-seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of activity would be required. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the operation restrictions and mitigation measures.

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## 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

*See USFS Roadside Hazard Decision for further analysis*

Alternative A - No Action: No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Slash and down woody debris could end up in the stream course.

Alternative B – Action: The regulated operation of harvest equipment within the first 35 feet of the SMZ may introduce very low levels of sediment delivery to the stream. The 15 foot equipment exclusion zone, with mitigation measures properly installed, would be expected to provide suitable filtration for any displaced soils or increased runoff due to compacted soils in the 15'-50'AP zone. Increases in sedimentation would be expected to be very minimal and temporary due to operations only occurring on slopes less than 20% combined with the application of mitigation measures. Mitigation measures include imposing seasonal operating restrictions that require ground to be dry and requiring grass seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area concurrent with operations. DNRC may monitor AP sites to verify effectiveness. Minimal direct, indirect, and cumulative impacts to water quality and quantity are expected due to operation restrictions and mitigation measures. Impacts would also be localized due to the short length stream the Action Alternative applies to. Minimal direct, indirect or cumulative impacts to water quality are anticipated due to the operation restrictions and mitigation measures.

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## 6. AIR QUALITY:

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

*See USFS Roadside Hazard Decision for further analysis*

The project is located in Montana State Airshed 6 which encompasses most of Jefferson County. Under either the Action Alternative or the No Action Alternative the USFS plans to burn slash piles.

Alternative A – Minor Temporary impacts due to increased particulate matter from burning slash piles. USFS is part of the Montana Idaho Airshed Group that requires burning be done when dispersion conditions provide for sufficient ventilation.

Alternative B – Minor Temporary impacts due to increased particulate matter from burning slash piles. USFS is part of the Montana Idaho Airshed Group that requires burning be done when dispersion conditions provide for sufficient ventilation. No direct, indirect, or cumulative impacts are anticipated to occur.

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## 7. VEGETATION COVER, QUANTITY AND QUALITY:

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

*See USFS Roadside Hazard Decision for further analysis*

Alternative A - No Action: Vegetative communities would be affected to the extent that Douglas-fir, lodgepole pine, Engelmann spruce would not be reduced to below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook.

Alternative B – Action: Vegetative communities may be affected to the extent Douglas-fir, lodgepole pine, Engelmann spruce would be reduced to below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook. Other tree species unless identified as hazardous would be retained where present and understory vegetation would be protected to the greatest extent possible. Impacts would also be localized due to the short length segment of stream to which the Action Alternative applies.

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**8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:**

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

*See USFS Roadside Hazard Decision for further analysis*

Alternative A – No Action: Due to the areas being heavily used for recreation and proximity to improvements, the suitability of the proposed sites would continue to be marginal for terrestrial and avian habitat. (See attached list for *Species of Concern*)

Alternative B – Action: Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat. In areas of reduced below retention tree requirements, stream shading would be minimally reduced and peak seasonal stream temperatures may see an increase in July and August, however trees being removed are primarily dead and not providing much shade. Submerchantable trees and brush would be retained and protected to the greatest extent possible. Minimal direct, indirect or cumulative impacts to aesthetics are anticipated due to the length of the stream segment, location of stream segment, operation restrictions and mitigation measures.

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**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

Alternative A – No Action: *See USFS Roadside Hazard Decision for further analysis*

Alternative B – Action: If a sighting of any of the listed species of concern (or evidence such as nests, dens, etc.) occurs, operations would be halted, or not allowed, until further assessment can take place.

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**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

*See USFS Roadside Hazard Decision for further analysis.*

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**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A – No Action: Operations would adhere to Minimum retention standards and equipment restrictions.

Alternative B – Action: Potential impacts may be perceived as adverse by recreationists, landowners and travelers. The removal hazard trees could look unsightly in the short term, but would encourage regeneration. This regeneration would eventually soften and replace aesthetic quality damaged by mountain pine beetle infestation. Impacts would also be localized due to the short length stream. Minimal direct, indirect or cumulative impacts to aesthetics are anticipated due to the length of the stream segment, location of stream segment, operation restrictions and mitigation measures.

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**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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<p><b>IV. IMPACTS ON THE HUMAN POPULATION</b></p> <ul style="list-style-type: none"><li>• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i></li><li>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i></li><li>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i></li></ul>
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**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A – No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B – Action: The mechanical removal of hazard trees would improve safety to forest workers, utility company employees and those that use the area for recreation.

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**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A – No Action: Project would continue without mechanical removal of trees inside SMZ with negligible impact to employment.

Alternative B – Action: Negligible impact to employment is anticipated.

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**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: Negligible amounts.

Alternative B- Action: Negligible amounts.



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**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: Recreational cabins and forest roads may have temporary use restrictions due to removal operations. Minimal direct, indirect or cumulative impacts to quality of recreational and wilderness activities are anticipated due to hazard trees being removed.

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**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated occur.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

*See USFS Roadside Hazard Decision for further analysis.*

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

See USFS Roadside Hazard Decision for further analysis.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Devin Healy	<b>Date:</b> 8/3/2017
	<b>Title:</b> Helena Unit Forester	

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<b>V. FINDING</b>
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**25. ALTERNATIVE SELECTED:**

Alternative B - Action: Allow SMZ Alternative Practices as proposed with additional mitigation measures.

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**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

As proposed with mitigations listed in Section I. **TYPE AND PURPOSE OF ACTION**, significant direct, indirect, cumulative effects or impacts to the integrity and function of the SMZ are not anticipated.

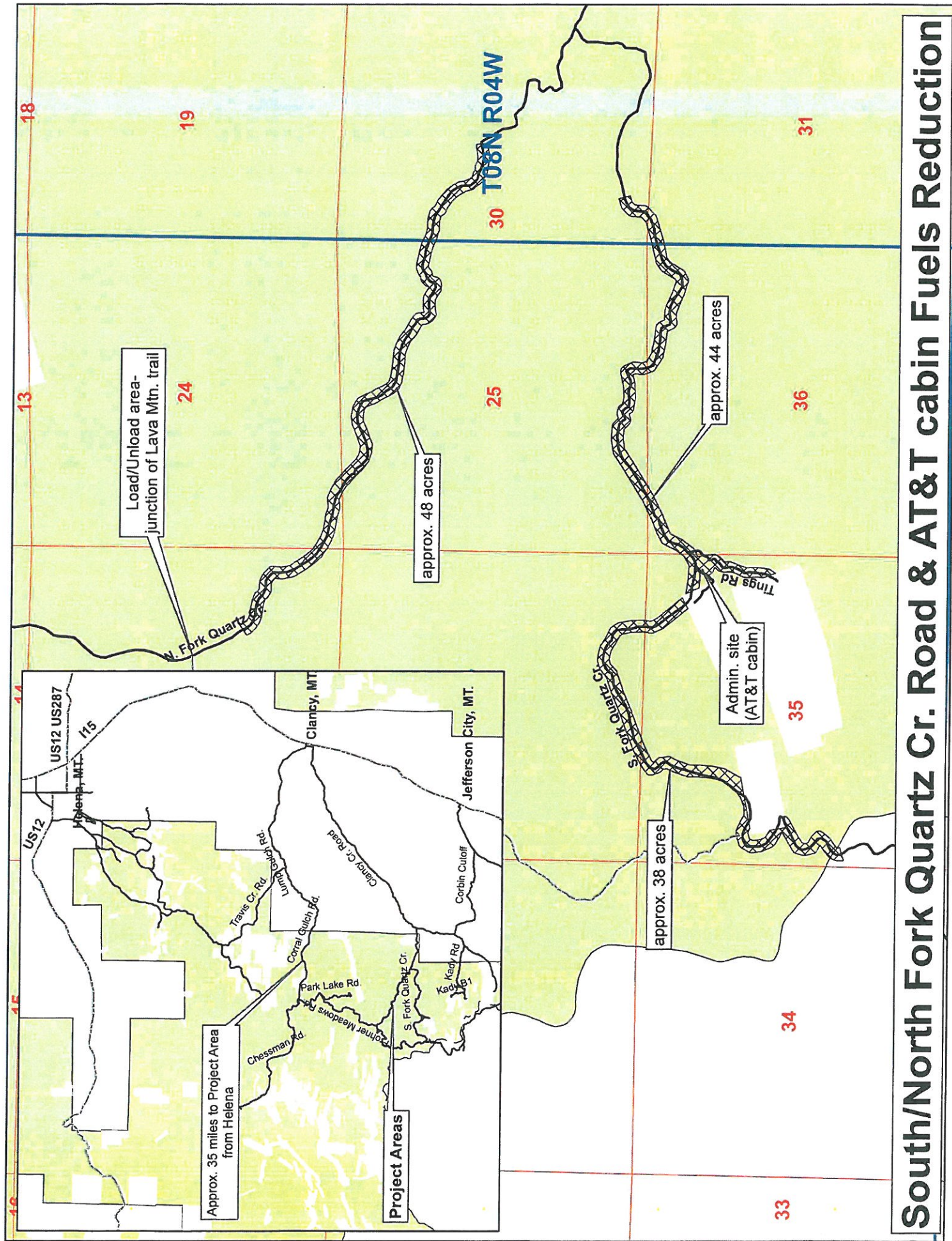
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**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

☐ EIS      ☐ More Detailed EA      ☒ No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Andy Burgoyne
	<b>Title:</b> Helena Unit
<b>Signature:</b> /S/ Andy Burgoyne	<b>Date:</b> 8/3/2017





# South/North Fork Quartz Cr. Road & AT&T cabin Fuels Reduction



